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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/538,080	10/25/2005	Ryosaku Nakata	041094-5028	9228
9629	7590	10/18/2006	EXAMINER	
MORGAN LEWIS & BOCKIUS LLP 1111 PENNSYLVANIA AVENUE NW WASHINGTON, DC 20004			BAUER, SCOTT ALLEN	
			ART UNIT	PAPER NUMBER
			2836	

DATE MAILED: 10/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/538,080	Applicant(s) NAKATA, RYOSAKU	
	Examiner Scott Bauer	Art Unit 2836	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-5 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 3 and 4 is/are allowed.
- 6) ☒ Claim(s) 1, 2 and 5 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 June 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |                                                                                                           |                                                                                        |
|-----------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                                          | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                      | 5) <input type="checkbox"/> Notice of Informal Patent Application                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date ____ | 6) <input type="checkbox"/> Other: ____                                                |

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 & 5 are rejected under 35 U.S.C. 102(b) as being anticipated by JP7-298476.

3. With regard to Claim 1, JP7-298476, in Figure 4, discloses a thunderbolt disaster protecting apparatus comprising: a thunderbolt attack detecting circuit (2) for determining whether or not any thunderbolt is approaching by detecting a thunderbolt signal; and a switching mechanism (8 & 9) for changing over to a normal condition in which a protection object device (16) is connected to an electric path (13-15) or a thunderbolt resisting condition in which the protection object device (16) is separated from the electric path, wherein said thunderbolt attack detecting circuit (2) and said switching mechanism (8 & 9) obtain a control power supply from said electric path and said thunderbolt attack detecting circuit changes over said switching mechanism to said normal condition at the time of normal condition and when any thunderbolt is approaching, changes over said switching mechanism to said thunderbolt resisting condition, and said thunderbolt disaster protecting apparatus further comprising a power

interruption restoration circuit which after said control power supply is interrupted and then the power interruption is restored, determines whether or not any thunderbolt is approaching in a predetermined time interval and changes over said switching mechanism to said thunderbolt resisting condition if a thunderbolt is approaching and to said normal condition if the condition is normal (See abstract).

4. With regard to Claim 5, JP7-298476 discloses the thunderbolt disaster protecting apparatus according to claim 1, wherein when a lightning surge occurs after said power interruption, said protection object device remains protected (See abstract).

5. Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Uman (US 4,276,576).

6. With regard to Claim 1, Uman, in Figure 1, discloses a thunderbolt disaster protecting apparatus comprising: a thunderbolt attack detecting circuit (10) for determining whether or not any thunderbolt is approaching by detecting a thunderbolt signal; and a switching mechanism (114) for changing over to a normal condition in which a protection object device is connected to an electric path or a thunderbolt resisting condition in which the protection object device is separated from the electric path, wherein said thunderbolt attack detecting circuit (10) and said switching mechanism (114) obtain a control power supply from said electric path and said thunderbolt attack detecting circuit changes over said switching mechanism to said

normal condition at the time of normal condition and when any thunderbolt is approaching (column 3 lines 25-34), changes over said switching mechanism (114) to said thunderbolt resisting condition, and said thunderbolt disaster protecting apparatus further comprising a power interruption restoration circuit which after said control power supply is interrupted and then the power interruption is restored, determines whether or not any thunderbolt is approaching in a predetermined time interval and changes over said switching mechanism to said thunderbolt resisting condition if a thunderbolt is approaching and to said normal condition if the condition is normal (column 3 lines 55-68 & column 4 lines 1-25).

***Claim Rejections - 35 USC § 103***

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP7-298476 in view of Wynn et al. (US 6,104,583).

9. With regard to Claim 2, JP7-298476 teaches the thunderbolt disaster protecting apparatus according to claim 1.

JP7-298476 does not teach that the switching mechanism can be maintained mechanically the normal condition or the thunderbolt resisting condition of the time of change-over even in non-voltage condition.

Wynn et al., teaches an over current protection system wherein a load is disconnected from a power supply during a fault condition wherein latching relays are used connect and disconnect the circuit.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine the teachings of JP7-298476 with Wynn et al., by replacing the switching means (8&9) of JP7-298476 with a latching relay and driving circuitry taught by Wynn et al., for the purpose of providing low power dissipation when switching the contacts (Wynn et al. column 6 lines 17-24).

***Allowable Subject Matter***

10. Claims 3 & 4 are allowed.

11. The following is an examiner's statement of reasons for allowance:

Claim 3 is allowable because the prior art of record does not teach or fairly suggest a thunderbolt disaster protecting apparatus comprising all the features as recited in the claims and in combination with a thunderbolt resisting transformer comprising a switching mechanism for changing over to the normal condition in which a protection object device is connected to an electric path or to the thunderbolt resisting

condition in which said protection object device is connected to the electric path through said thunderbolt resisting transformer, wherein when said switching mechanism is in said normal condition said thunderbolt resisting transformer is disconnected from said electric path to eliminate power consumption by said thunderbolt resisting transformer.

Although Toyonaka (US 3,601,618) teaches that power can be supplied through a transformer ( $Tr_3$ ) wherein the transformer can be bypassed with a switching operation, there would be no motivation to combine the two references as argued by Applicant on page 14 of the Amendment of 28 July 06.

12. Claim 4 is allowable as it depends from Claim 3, which is also allowable.

### ***Response to Arguments***

13. Applicant's arguments filed 28 July 06 have been fully considered but they are not persuasive.

On page 14 of the Amendment of 28 July 06, Applicant argues that the Kato and Uman references do not teach "a power interruption restoration circuit which after said control power supply is interrupted and then the power interruption is restored, determines whether or not any thunderbolt is approaching in a predetermined time interval and changes over said switching mechanism to said thunderbolt resisting condition if a thunderbolt is approaching and to said normal condition if the condition is normal," as recited in claim 1.

However, it is asserted that the prior art does in fact teach this feature. With regard to the Kato reference (JP7-298476), the abstract teaches that commercial power supplies 13, 14 & 15 are turned off and remained interrupted until the lightening moves far away. This is accomplished by continually detecting lightning after the power has been interrupted, and resetting a 20-minute timer each time a strike is detected. After the setting time expires, the lines (13, 14 & 15) would be restored. As the 20 minutes ended, the circuit would necessarily start a power restoration circuit wherein the circuit would resume normal conditions if the lightning signal was not detected or would reset the counter again and thus change over the switching mechanism to a thunderbolt resisting condition if the lightening where detected. Further, after a normal condition was restored, and a thunderbolt was detected within a predetermined period of time, the circuit would change over the switching mechanism to the thunderbolt resisting mechanism again.

A similar argument is made for the Uman (US 4,276,576) reference. Uman employs a comparable system in which a counter is set at 20 minutes upon the detection of an approaching thunderbolt. For the same reasons given about, Uman teaches the claim limitation.

The Morita rejection has been withdraw as the reference makes no mention of how the circuit switches back to normal mode.

14. The English-language translations of the Kato and Morita references could not be found in the Amendment and thus could not be considered.



15. As mentioned above the rejection of claim 3 has been withdrawn in view of Applicant's arguments.

***Conclusion***

16. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

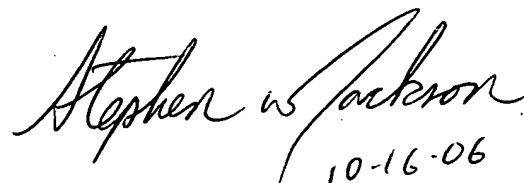
17. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Bauer whose telephone number is 571-272-5986. The examiner can normally be reached on M-F 9am-6pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Brian Sircus can be reached on 571-272-2058. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Art Unit: 2836

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

SAB  
10 OCT 06



10-16-06

STEPHEN W. JACKSON  
PRIMARY EXAMINER